

COAL CREEK FIELD REPORT
Arne Bakke - September 13, 1988

In conjunction with the Bureau's strategic and critical mineral studies, a brief reconnaissance investigation was conducted at the Coal Creek tin prospect. The purpose of the investigation was to furnish UAF graduate student Tracy Parker a surficial perspective of the prospect to facilitate his future studies of the drill core.

The Coal Creek tin prospect is located in the NW corner of the Talkeetna Mountains D-6 quadrangle and access was provided by helicopter during the mobilization of a separate project near Healy. Approximately 3 hours were spent at the prospect.

The surficial expression of the prospect consists of sparse and scattered outcroppings and several prospect pits. Random grab samples were taken from the prospect pits and a few pieces of drill core were recovered from the drill sites. Random chip samples were acquired from the skarn occurrence.

<u>Sample #</u>	<u>Description</u>
AK26951	Skarn: massive sulfide mineralization hosted in dark green pyroxene skarn, ore minerals include pyrrhotite, chalcopyrite, bornite, sphalerite, and fluorite. Weathered surface is dark brown.
AK26952	Altered granite, porphyritic to seriate porphyritic with phenocrysts of smoky and clear quartz, feldspar, and topaz up to 5 mm in size. Greisen alteration present as abundant veins (up to 1 cm in thickness), veinlets and clots of black tourmaline (some grains possess a bluish color) with alteration envelopes of quartz and white mica. Several of the samples appear to have undergone considerable silicification. Alteration gives the rock an overall light brown "bleached" appearance. A few grains of cassiterite? were also identified.

Other lithologies present include a coarse porphyritic granite that may be a precursor to the seriate porphyritic phase and aplite rubble and dikes.

Through surface observations, it is difficult to ascertain the extent of the greisen alteration, although it appears to be steeply dipping on the north edge, due to lack of outcroppings along the flank of the mountain to the north of the prospect.

REFERENCES

- Hawley, C.C., 1978, The mineral potential of Alaska's Mt. McKinley region: A summary report: U.S. Bureau of Mines Open File Report 117-78, 18p.
- Reed, Bruce L., 1978, Disseminated tin occurrence near Coal Creek, Talkeetna Mountains D-6 quadrangle, Alaska: USGS Open-File Report 78-77, 8p.
- U.S. Bureau of Mines, 1985, Coal Creek tin prospect - field report: Alaska Field Operations Center-Fairbanks: 8p.

Coal Creek Talk, Mtus D-6

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